CLAIMS

1. A knock sensor for an internal combustion engine with an electronically evaluated vibration sensor,
characterized in
that this vibration sensor is realized in the form of a piezoresistive amorphous carbon layer (5; 8; 9; 10) that is rigidly applied onto a surface section of a base body (1, 4, 4', 10), wherein the carbon layer measures between 10 nm and 500 µm, particularly between 10 nm and 20 µm.

2. A knock sensor for an internal combustion engine with an electronically evaluated vibration sensor,
characterized in
- that the knock sensor comprises at least one spring washer (4, 4') that is or can be tensioned relative to the internal combustion engine, and in
- that a piezoresistive amorphous carbon layer (5) is applied onto at least one face of the at least one spring washer (4; 4').

3. The knock sensor according to Claim 2,
characterized in
that the carbon layer measures between 10 nm and 500 µm, preferably between 10 nm and 20 µm.

4. The knock sensor with a seismic mass (3, 3') according to one of the preceding claims,
characterized in

that the at least one piezoresistive amorphous carbon layer (8; 9; 10) is arranged between the seismic mass (3, 3') and an abutment (1) or (2) that respectively is or can be rigidly connected to the internal combustion engine.

5. The knock sensor according to one of Claims 2-4, **characterized in**
that at least two spring washers (4, 4') are arranged in series with or without a seismic mass (3') provided in between.

6. The knock sensor according to Claim 4 or 5, **characterized in**
that the seismic mass (3, 3') is integrated into at least one spring washer (4, 4').

7. The knock sensor according to one of the preceding claims, **characterized in**
that said knock sensor is provided with means for a telemetric signal tap.